

**Flood Control Project Maintenance  
Levee Inspections**

**Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016**

**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	<b>0.00</b>	Rating **	A	Issue No.	<b>2</b>
LM End	<b>0.00</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Operations & Maintenance Manuals			°	°
DWR ID	DWR_RD2091_01_s _ 2013_2				
Comment Code					
Inspector Comment					
The LMA has copy of O & M manual on file at district office.					

No Photos

LM Start	<b>0.00</b>	Rating **	A	Issue No.	<b>4</b>
LM End	<b>0.00</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Emergency Supplies & Equipment			°	°
DWR ID	DWR_RD2091_01_s _ 2013_4				
Comment Code					
Inspector Comment					
The LMA maintains adequate flood fight supplies and equipment.					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.00	Rating **	A	Issue No.	5	
LM End	0.00	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Flood Preparedness & Training				°	
					°	
DWR ID	DWR_RD2091_01_s_2013_5					
Comment Code						
Inspector Comment						
The LMA maintains a good working knowledge of flood response activities.						

No Photos

LM Start	0.23	Rating **	U	Issue No.	15
LM End	0.23	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.541550 °	37.541550 °
				-121.096742 °	-121.096742 °
DWR ID	DWR_RD2091_01_s_2016_15				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Caving on landward shoulder possible collapsed pipe. Caving is 34 feet long over one inch depth.					

Photo 1 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_00002.jpg



Looking west at dip on landward levee shoulder.

LM Start	<b>0.23</b>	Rating **	U	Issue No.	<b>15 (cont)</b>
LM End	<b>0.23</b>	Issue Type +	Ma	Location *	LS

Photo 2 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_00003.jpg



Looking southeast at depression along landward shoulder.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

Photo 3 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_00004.jpg



Looking south at depression along landward shoulder.

Photo 4 of 4 : FA\_2016\_RD2091\_318\_15\_20161007\_000005.jpg



Looking northwest at depression along landward shoulder.

Photo 1 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00006.jpg



Looking east at fringer erosion on landward slope.

* Location	** Rating	+ Issue Type
LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable                      N : Not Inspected/Rated M : Minimally Acceptable        C : Corrected U : Unacceptable                  A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

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### Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.25	Rating **	M	Issue No.	16 (cont)	
LM End	0.28	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			37.541492°	37.541408°	
				-121.097052°	-121.097453°	
DWR ID	DWR_RD2091_01_s_2016_16					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						
Several fringer erosions and possible rodent holes along landward shoulder and slope.						

Photo 2 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00007.jpg



Looking east at fringer erosion and possible rodent hole on landward slope.

LM Start	<b>0.25</b>	Rating **	M	Issue No.	<b>16 (cont)</b>
LM End	<b>0.28</b>	Issue Type +	Ma	Location *	LS

Photo 3 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00008.jpg



Looking east at fringer erosion on landward slope.

LM Start	<b>0.25</b>	Rating **	M	Issue No.	<b>16 (cont)</b>
LM End	<b>0.28</b>	Issue Type +	Ma	Location *	LS

Photo 4 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00009.jpg



Looking east at fringer erosion and possible rodent hole on landward slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.25	Rating **	M	Issue No.	16 (cont)	
LM End	0.28	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			37.541492 °	37.541408 °	
				-121.097052 °	-121.097453 °	
DWR ID	DWR_RD2091_01_s_2016_16					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						
Several fringer erosions and possible rodent holes along landward shoulder and slope.						

Photo 5 of 5 : FA\_2016\_RD2091\_318\_16\_20161007\_00010.jpg



Looking east at erosion and possible rodent hole on landward shoulder.

LM Start	4.85	Rating **	U	Issue No.	10
LM End	4.85	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.494115 °	37.494115 °
				-121.078100 °	-121.078100 °
DWR ID	DWR_RD2091_01_f_2016_10				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Several large rodent holes on landward slope.					

Photo 1 of 3 : FA\_2016\_RD2091\_318\_10\_20161027\_00029.jpg



Looking south at several rodent holes on landward slope.

LM Start	<b>4.85</b>	Rating **	U	Issue No.	<b>10 (cont)</b>
LM End	<b>4.85</b>	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : FA\_2016\_RD2091\_318\_10\_20161027\_00028.jpg



Looking south at close-up view of rodent holes on landward slope.

* Location LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

LM Start	4.85	Rating **	U	Issue No.	10 (cont)	
LM End	4.85	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Animal Control			37.494115 °		37.494115 °
				-121.078100 °		-121.078100 °
DWR ID	DWR_RD2091_01_f_2016_10					
Comment Code						
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.						
Inspector Comment						
Several large rodent holes on landward slope.						

Photo 3 of 3 : FA\_2016\_RD2091\_318\_10\_20161027\_00027.jpg



Looking west at close-up view of rodent holes on landward slope.

LM Start	5.20	Rating **	M	Issue No.	13
LM End	5.20	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.490756 °	37.490756 °
				-121.073410 °	-121.073410 °
DWR ID	DWR_RD2091_01_f_2016_13				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
Vehicle traffic damaging slope on waterward and landward slope.					

Photo 1 of 2 : FA\_2016\_RD2091\_318\_13\_20161027\_00030.jpg



Looking at damage on waterward slope.

LM Start	<b>5.20</b>	Rating **	M	Issue No.	<b>13 (cont)</b>
LM End	<b>5.20</b>	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : FA\_2016\_RD2091\_318\_13\_20161027\_00031.jpg



\* Location  
LS : Land Side    N/A : Not Applicable  
WS : Water Side  
CR : Crown

\*\* Rating  
A : Acceptable                      N : Not Inspected/Rated  
M : Minimally Acceptable        C : Corrected  
U : Unacceptable                  A/W : Acceptable but Monitor & Maintain

+ Issue Type  
Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
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Unit No. 01 San Joaquin River	Right	7.46	10/26/2016 10/26/2016	Richard Willoughby

No Photos

Photo 1 of 2 : FA\_2016\_RD2091\_318\_12\_20161027\_00033.jpg



Looking north at untrimmed tree at landward toe.

LM Start	<b>5.92</b>	Rating **	M	Issue No.	<b>12 (cont)</b>
LM End	<b>5.92</b>	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : FA\_2016\_RD2091\_318\_12\_20161027\_00032.jpg



Look southeast at untrimmed tree at landward toe.

* Location	** Rating	+ Issue Type
LS : Land Side    N/A : Not Applicable	A : Acceptable                      N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable            C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable                      A/W : Acceptable but Monitor & Maintain	En : Enforcement

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**Reclamation District No. 2091 Chase**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River		0.05	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.03	Rating **	C	Issue No.	1
LM End	0.03	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.482523°	37.482523°
				-121.051103°	-121.051103°
DWR ID	DWR_RD2091_02_s_2012_1				
Comment Code					
T2 : Thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					

No Photos

LM Start	0.05	Rating **	C	Issue No.	2
LM End	0.05	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.482815 °	37.482815 °
				-121.050849 °	-121.050849 °
DWR ID	DWR_RD2091_02_f_2012_2				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River		0.05	10/26/2016 10/26/2016	Richard Willoughby

LM Start	0.30	Rating **	M	Issue No.	4
LM End	0.30	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.541327°	37.541327°
				-121.097895°	-121.097895°
DWR ID	DWR_RD2091_02_f _ 2016_4				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : FA\_2016\_RD2091\_319\_4\_20161027\_00002.jpg



Looking south at untrimmed tree at landward slope.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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